

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
3 June 2004 (03.06.2004)

PCT

(10) International Publication Number
WO 2004/047357 A1

(51) International Patent Classification⁷: H04L 1/18

(74) Agents: HOFFMANN EITL et al.; Arabellastrasse 4,
81925 München (DE).

(21) International Application Number:
PCT/EP2002/012916

(22) International Filing Date:
18 November 2002 (18.11.2002)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): TELE-
FONAKTIEBOLAGET LM ERICSSON (publ)
[SE/SE]; S-164 83 Stockholm (SE).

(72) Inventors; and

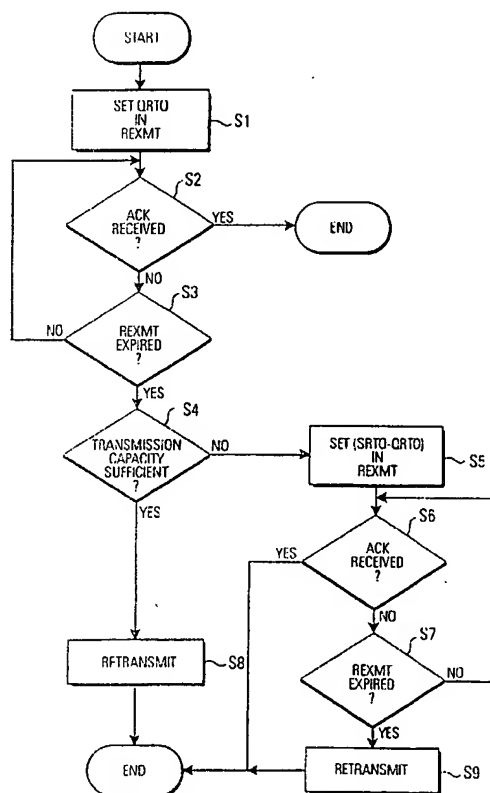
(75) Inventors/Applicants (for US only): MEYER, Michael
[DE/DE]; Grossheidstrasse 27, 52080 Aachen (DE). LUD-
WIG, Reiner [US/DE]; Bergstrasse 18, 52393 Huertgen-
wald (DE). EKSTRÖM, Hannes [SE/DE]; Ludwigsallee
55, 52062 Aachen (DE).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK,
TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: DATA UNIT SENDER AND METHOD OF CONTROLLING THE SAME



(57) Abstract: A data unit sender and method of controlling a data unit sender are presented, in which a time-out monitoring procedure implements a first, longer time-out period (SRTO), and a second, shorter time-out period (QRTO), where a retransmission is executed after the shorter time-out period if the available transmission capacity value for unsent data is greater or equal to the size of a designated data unit that is to be retransmitted as a result of said time-out monitoring procedure.

WO 2004/047357 A1